35. The method of claim 33, wherein the cell is dead when the amount of labeled complex is compared.

36. The method of claim 33, wherein the labeled protein comprises a fluorescently labeled protein.

37. The method of claim 33, wherein the labeled protein is a fluorescent protein fused to a protein that associates with DNA.

38. The method of claim 37, wherein the fluorescent protein is Aequorea victoria green fluorescent protein, Aequorea victoria cayenne fluorescent protein or Aequorea victoria yellow fluorescent protein.

39. The method of claim 33, wherein the labeled protein that associates with DNA is a histone or an analog thereof.

40. The method of claim 39, wherein the histone is H3, H4, H2A or H2B.

41. The method of claim 39, wherein the histone is H2B.

42. The method of claim 33, wherein the cell contains an oncogene.

43. The method of claim 33, wherein the cell lacks at least one functional tumor suppressor gene.

44. The method of claim 33, wherein the cell expresses a non-functional p53 protein.

45. The method of claim 33, wherein the cell is a cancer cell.

46. The method of claim 33, wherein the cell is a human cell.

47. The method of claim 33, wherein the cell is a neoplastic cell.

48. The method of claim 33, wherein the labeled complex is compared with fluorescence microscopy or flow cytometry.

49. The method of claim 33, further comprising determining if the cell has undergone reversion of a neoplastic phenotype, differentiation or apoptosis.

50. A method to identify an agent that increases or decreases the amount of an extrachromosomal DNA in a cell, comprising:

a) contacting the cell with the agent, wherein the cell expresses a labeled protein that is a non-centromere binding protein or a lac operator that associates with the extrachromosomal DNA to form a labeled complex; and

b) comparing the amount of the labeled complex contained in the cell contacted with the agent with the amount of labeled complex contained in a cell that was not contacted with the agent.

51. A therapeutic agent identified according to the method of claim 33.

52. A therapeutic agent identified according to the method of claim 50.

53. The method of claim 33, wherein the comparing is done in vitro, in vivo or ex vivo.

54. The method of claim 50, wherein the comparing is done in vitro, in vivo or ex vivo.

REMARKS

Applicants respectfully submit that the new claims are fully supported by the specification and that no new matter is added to the application. In particular, examples of